



MCH Data Brief

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Kentucky Department for Public Health, Division of Maternal & Child Health

Infant Mortality

Infant mortality is the death of a child any time after birth and before reaching his or her first birthday. Nearly all of these deaths are non-injury deaths related to medical conditions. The infant mortality rate (an estimate of the number of infant deaths for every 1,000 live births) is often used as an indicator to measure the health status of a nation as it is associated with a variety of factors such as maternal health, quality and access to medical care, socioeconomic conditions, and public health practices.¹ The three leading causes of infant mortality both nationally and in Kentucky are congenital anomalies (birth defects), prematurity and low birth weight, and Sudden Infant Death Syndrome (SIDS). Other causes of infant mortality include maternal complications during pregnancy and victims of injuries.²

Leading Causes of Infant Mortality:

Congenital Anomalies (Birth Defects)

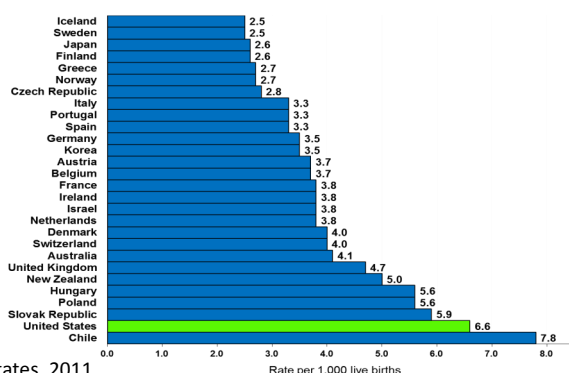
Prematurity and Low Birth Weight

Sudden Infant Death Syndrome (SIDS)

Maternal Complications during Pregnancy

Injuries

Infant Mortality Rates, Selected Countries, 2008³

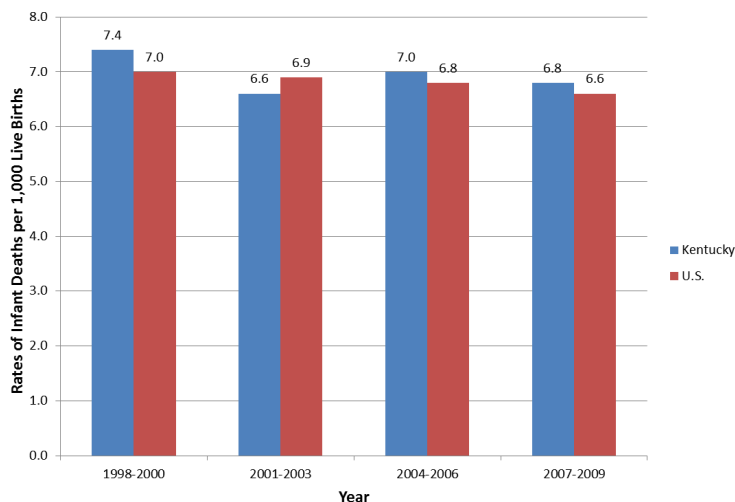


Among selected countries, the United States ranks 27th with an infant mortality rate of 6.6 infant deaths per 1,000 live births in 2008.

Source: Health, United States, 2011

Kentucky Compared to the Nation

Infant Mortality Rates in Kentucky and the Nation, 1998-2009*



Kentucky's infant mortality rate has historically run close to the national average. The National Center for Health Statistics uses three year linked files to assess infant mortality rates in the Nation and for each state. The figure to the left shows how close Kentucky's rate is to the Nation.

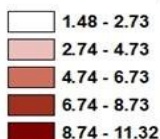
Kentucky's rate exceeds the Nation in all time periods except for 2001-2003. Over the twelve years depicted, there has been very little improvement in infant mortality rates despite advances in knowledge and technology. Improvements must be made to achieve the Healthy People 2020 goal of 6.0 infant deaths per 1,000 live births.⁸

*Data Source: National Center for Health Statistics, National Vital Statistics Reports, Infant Mortality Statistics from the 2000, 2003, 2006 and 2009 Period Linked Birth/Infant Death Data Sets.⁴⁻⁷

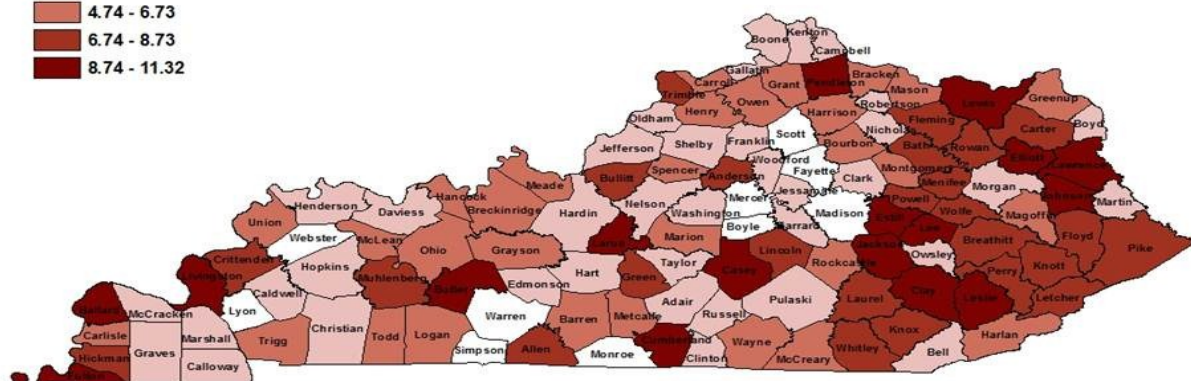
Kentucky's infant mortality rate from 2002-2011 averaged 6.73 infant deaths per 1,000 live births. A geographical analysis of these data reveal that some counties have infant mortality rates higher than third world countries.

Kentucky Infant Mortality Rates (IMR)* by County, 2002-2011

Infant Mortality Rates per 1,000 Live Births



US IMR¹ = 6.6 per 1,000 Live Births
KY IMR = 6.73 per 1,000 Live Births



Data Sources: Kentucky Live Birth and Death Certificates, 2007-2011. Data from 2009-2011 are preliminary and numbers may change.

¹National Center for Health Statistics. *National Vital Statistics Reports: Deaths: Preliminary Data for 2011, Deaths: Final Data for 2010 through 2002, Births: Preliminary Data for 2011, Births: Final Data for 2010 through 2002.*

*Note: Infant Mortality Rate = the total number of infant deaths per 1,000 live births

The Federal Initiative on Infant Mortality⁹

The Health Resources and Services Administration, in collaboration with ASTHO, March of Dimes, and others, launched an infant mortality effort in January 2012 to reduce infant mortality and improve birth outcomes for the states in regions IV (AL, GA, FL, KY, MS, NC, SC, TN) and VI (AR, LA, NM, OK, TX). An Infant Mortality Summit of teams from each state in January 2012 was followed by a Collaborative Improvement and Innovation Network [COIIN] of virtual teams with representatives from each state. This infant mortality COIIN is developing common strategies with specific aims and activities to reduce infant mortality across the participating states. These five strategy areas include:

- ◆ Increase Safe Sleep Practices
- ◆ Preconception/ Interconception Care through Medicaid
- ◆ Enhance Perinatal Regionalization
- ◆ Increase Smoking Cessation in Pregnant women
- ◆ Reduce Elective Deliveries Prior to 39 Weeks

References:

¹ GK Singh and SM Yu. Infant mortality in the United States: trends, differentials, and projections, 1950 through 2010. *Am J Public Health*. 1995. 85(7):957.

²Center for Disease Control and Prevention (CDC). Infant Mortality. Retrieved February 11, 2013 from <http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm>.

³National Center for Health Statistics. Health, United States, 2011: With Special Feature on Socioeconomic Status and Health. Hyattsville, Maryland. 2012.

⁴Mathews, T.J., Menacker, F., and MacDorman, M.F. Infant mortality statistics from the 2000 period linked birth/infant death data set. *National Vital Statistics Reports*. 2002. 50(12). Retrieved February 11, 2013 from http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_12.pdf.

⁵Mathews, T.J., and MacDorman, M.F. Infant mortality statistics from the 2003 period linked birth/infant death data set. *National Vital Statistics Reports*. 2006. 54(16). Retrieved February 11, 2013 from http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54_16.pdf.

⁶Mathews, T.J., and MacDorman, M.F. Infant mortality statistics from the 2006 period linked birth/infant death data set. *National Vital Statistics Reports*. 2010. 58(17). Retrieved February 11, 2013 from http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_17.pdf.

⁷Mathews, T.J., and MacDorman, M.F. Infant mortality statistics from the 2009 period linked birth/infant death data set. *National Vital Statistics Reports*. 2013. 61(8). Retrieved February 11, 2013 from http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_08.pdf.

⁸Healthy People 2020. Retrieved February 14, 2013 from <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=26>.

⁹Ghandour R., Presentation: *Collaborative Improvement & Innovation Network (COIIN)* 101. Presented February 10, 2013.